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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

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on February 20, 2008

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Application Number

10/686,331

Filed

October 14, 2003

First Named Inventor

Richard M. Butler

Art Unit

2193

Examiner

Chat C. Do

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

/Kyle J. Way/

Signature

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

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Registration number if acting under 37 CFR 1.34

February 20, 2008

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.
Submit multiple forms if more than one signature is required, see below.

☒ *Total of 1 forms are submitted.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Richard M. Butler

Confirmation No.: 7201

Application No.: 10/686,331

Group No.: 2193

Filed: 10-14-2003

Examiner: Chat C. Do

For: GENERATION OF CRYPTOGRAPHICALLY STRONG RANDOM NUMBERS
USING MISRS

Mailstop: AF

Commissioner for Patents

P. O. Box 1450

Alexandria, VA 22313-1450

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Introductory Comments

In response to the advisory action dated February 6, 2008 (hereinafter “the advisory action”), the Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request. A Notice of Appeal under 37 C.F.R. § 41.31(a)(1) is being filed herewith.

Claims 1-22 remain pending. Claims 4-6 and 19 stand objected to for depending from a rejected base claim, but are otherwise allowable. (Page 7 of the final Office action dated November 26, 2007, hereinafter “the final Office action.”) Claim 22 is allowed. (Id.) Claims 1-3, 7-18, 20, and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,757,923 to Koopman, Jr. (hereinafter “Koopman”) in view of U.S. Patent No. 5,867,409 to Nozuyama (hereinafter “Nozuyama”). (Page 2 of the final Office action.) The Applicant respectfully disagrees, and believes such allegations represent clear error in establishing a *prima facie* rejection under 35 U.S.C. § 103. The Applicant thus respectfully requests review of the rejection for at least the following reasons.

Remarks

Independent method claim 1 is reproduced below for convenience, with emphasis supplied:

1. A method of generating a random number, comprising:
sampling data transmitted over a number of microprocessor buses at inputs of a number of multiple input shift registers (MISRs) coupled with the number of microprocessor buses;
generating values within the MISRs based on the sampled data;
retrieving the values from the number of MISRs; and
generating a random number which is based on the values retrieved from the number of MISRs.

Below is a discussion of Koopman, followed by an analysis of the rejection from the final Office action, and an analysis of the interpretation of claim 1 presented in the advisory action.

Koopman

Generally, Koopman discloses “a method of generating secret identification numbers from a random digital data stream....” (Column 3, lines 60 and 61.) To that end, Koopman employs the system 5 of Fig. 1 to generate a plurality of random numbers. (Column 4, lines 63-65.) More specifically, the system 5 utilizes a chaotic noise source 10, such as a fan, to generate chaotic noise. (Column 5, lines 11-24.) A recording device 15, such as a microphone, records the chaotic noise and forwards it to a sampler and digitizer 25 of a computer 20. (Column 5, lines 26-36 and 43-45.) The sampler and digitizer 25 first samples the sound recorded by the recording device 15 periodically, resulting in a plurality of samples responsive to the chaotic noise. (Column 5, lines 46-49, 57, and 58.) “Each sample is then digitized by an analog to digital converter, such that each sample is converted into a digital data set....” (Column 5, lines 58-60.) One example of the sampler and digitizer 25 is a computer sound card. (Column 5, lines 61-65.) A microprocessor 35 of the computer 20 then operates on the resulting data set using a series of algorithmic functions to generate a random number output. (Column 5, line 66, to column 6, line 5.)

Analysis of the Rejection in the Final Office Action

In its rejection of claim 1, the final Office action alleges that Koopman teaches “sampling (e.g. by component 25 in Figure 1) data transmitted over a number of microprocessor buses (e.g. wherein the recording device 15 has a microprocessor for capturing the chaotic noise source from component 10) at input of a number of a processed component (e.g. processing component 35 for generating random numbers) coupled with the number of microprocessor buses (e.g. connecting with the components 25 and 15)....” (Page 2 of the final Office action; emphasis supplied.)

The Applicant respectfully disagrees with this characterization of Koopman. For one, Koopman does not teach or suggest that the recording device 15 incorporates a microprocessor or similar component. In fact, as indicated above, Koopman teaches that the recording device 15 is a *microphone*, and that the captured chaotic noise transferred from the recording device 15 to the sampler and digitizer 25 is in an *analog format* to be sampled, and subsequently *digitized*, as noted above. Thus, Koopman does not disclose, and in fact teaches away from, the use of a microprocessor in the recording device 15.

Moreover, even if a microprocessor could be incorporated in the recording device 15, Koopman does not teach or suggest that the data from the recording device 15 that is sampled at the sampler and digitizer 25 is transmitted over a number of microprocessor buses. Despite the assertion in the final Office action that a number of microprocessor buses connect with the recording device 15 and the sampler and digitizer 25, Koopman instead indicates that the recording device 15 is a microphone, and that the data received at the sampler and digitizer 25 is analog data that is sampled and digitized by way of an analog-to-digital converter, as noted above. Thus, Koopman does not teach or suggest, and instead teaches away from, one or more microprocessor buses connecting with the recording device 15 discussed therein. Thus, the data being sampled at the sampler and digitizer 25 is not data transmitted over a number of microprocessor buses, as provided in claim 1. Therefore, for at least these reasons, the Applicant contends that Koopman does not teach or suggest this provision of claim 1, and such indication is respectfully requested.

Analysis of the Interpretation of Claim 1 in the Advisory Action

In response to the arguments presented above, the advisory action states that “[b]ased on the current [claim] language, the examiner had reasonably and broadly interpreted the above feature [*“sampling data transmitted over a number of microprocessor buses at inputs of a number of multiple input shift registers (MISRs) coupled with the number of microprocessor buses”*] as a sampling device [that] is *sampling any data to/from or over a device* to input digital data to MISRs wherein *the device has a microprocessor as for capturing the noise source and the buses are the buses for transferring the captured noise sources to the MISRs.*” (Continuation sheet of the advisory action; emphasis supplied.) In other words, the advisory action appears to interpret claim 1 as disclosing a sampling device for sampling *any data* from *anywhere*. Further, the advisory action indicates that such a device has a microprocessor, wherein a bus of the microprocessor is used to transfer the previously-captured samples to the MISR. The Applicant respectfully asserts that this interpretation of claim 1 presented in the advisory action is incompatible with the language of the claim.

As set forth in claim 1, the data that is transmitted over a number of microprocessor buses *is the data which is being sampled*, and thus is not data that has already been sampled from some other source. Furthermore, the sampling operation of claim 1 occurs at inputs of a number of MISRs coupled with the number of microprocessor buses. In one example, the MISR performs the sampling of the data being transmitted over the microprocessor bus. Values based on the sampled data are then generated within the MISR, and retrieved therefrom. A random number is then generated based on the retrieved values. Thus, the Applicant respectfully asserts that the interpretation of claim 1 presented in the advisory action is incompatible with the language of that claim, and thus is not a reasonable reading thereof.

Therefore, based on the discussion presented above, the Applicant contends that claim 1 is allowable in view of the combination of Koopman and Nozuyama, and such indication is respectfully requested.

Claims 2-21 depend from independent claim 1, thus incorporating the provisions of that claim. Thus, the Applicant asserts that claims 2-21 are allowable in their present form for at least the reasons presented above in support of claim 1, and such indication is respectfully requested.

Conclusion

Based on the above remarks, the Applicant respectfully requests reversal of the 35 U.S.C. § 103 rejection of claims 1-3, 7-18, 20, and 21.

The Applicant hereby authorizes the Office to charge Deposit Account No. 08-2025 the appropriate fee under 37 C.F.R. § 41.20(b)(1) for the Notice of Appeal filed herewith. The Applicant believes no additional fees are due with respect to this filing. However, should the Office determine additional fees are necessary, the Office is authorized to charge Deposit Account No. 08-2025 accordingly.

Respectfully submitted,

Date: 2/20/2008

/Kyle J. Way/

SIGNATURE OF PRACTITIONER

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